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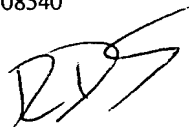
PATENT COOPERATION TREATY

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From the  
INTERNATIONAL PRELIMINARY EXAMINING AUTHORITY

To:  
JOSEPH S. TRIPOLI  
THOMSON MULTIMEDIA LICENSING, INC.  
TWO INDEPENDENCE WAY  
PRINCETON, NEW JERSEY 08540



PCTMS &amp; S

NOTIFICATION OF TRANSMITTAL OF  
INTERNATIONAL PRELIMINARY  
EXAMINATION REPORT

(PCT Rule 71.1)

Date of Mailing  
(day/month/year)

26 MAY 2004

Applicant's or agent's file reference

PU010288

## IMPORTANT NOTIFICATION

International application No.

International filing date (day/month/year)

Priority date (day/month/year)

PCT/US03/02930

31 January 2003 (31.01.2003)

31 January 2002 (31.01.2002)

Applicant

THOMSON LICENSING, S.A.

1. The applicant is hereby notified that this International Preliminary Examining Authority transmits herewith the international preliminary examination report and its annexes, if any, established on the international application.
2. A copy of the report and its annexes, if any, is being transmitted to the International Bureau for communication to all the elected Offices.
3. Where required by any of the elected Offices, the International Bureau will prepare an English translation of the report (but not of any annexes) and will transmit such translation to those Offices.
4. **REMINDER**

The applicant must enter the national phase before each elected Office by performing certain acts (filing translations and paying national fees) within 30 months from the priority date (or later in some Offices)(Article 39(1))(see also the reminder sent by the International Bureau with Form PCT/IB/301).

Where a translation of the international application must be furnished to an elected Office, that translation must contain a translation of any annexes to the international preliminary examination report. It is the applicant's responsibility to prepare and furnish such translation directly to each elected Office concerned.

For further details on the applicable time limits and requirements of the elected Offices, see Volume II of the PCT Applicant's Guide.

Name and mailing address of the IPEA/US

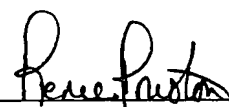
Mail Stop PCT, Attn: IPEA/US  
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Form PCT/IPEA/416 (July 1992)

# PATENT COOPERATION TREATY

## PCT

### INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference  PU010288	<b>FOR FURTHER ACTION</b> See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No.  PCT/US03/02930	International filing date ( <i>day/month/year</i> )  31 January 2003 (31.01.2003)	Priority date ( <i>day/month/year</i> )  31 January 2002 (31.01.2002)
International Patent Classification (IPC) or national classification and IPC  IPC(7): H01L 23/48 and US Cl.: 257/778		
Applicant  THOMSON LICENSING, S.A.		
<p>1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of <u>3</u> sheets, including this cover sheet.</p> <p><input checked="" type="checkbox"/> This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).</p> <p>These annexes consist of a total of <u>3</u> sheets.</p> <p>3. This report contains indications relating to the following items:</p> <ul style="list-style-type: none"> <li>I <input checked="" type="checkbox"/> Basis of the report</li> <li>II <input type="checkbox"/> Priority</li> <li>III <input type="checkbox"/> Non-establishment of report with regard to novelty, inventive step and industrial applicability</li> <li>IV <input type="checkbox"/> Lack of unity of invention</li> <li>V <input checked="" type="checkbox"/> Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</li> <li>VI <input type="checkbox"/> Certain documents cited</li> <li>VII <input type="checkbox"/> Certain defects in the international application</li> <li>VIII <input type="checkbox"/> Certain observations on the international application</li> </ul>		
Date of submission of the demand  21 August 2003 (21.08.2003)	Date of completion of this report  22 April 2004 (22.04.2004)	
Name and mailing address of the IPEA/US Mail Stop PCT, Attn: IPEA/US Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450 Facsimile No. (703) 305-3230	Authorized officer  Andy Huynh  Telephone No. (571) 272-1787	

## INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International Application No.

PCT/US03/02930

## I. Basis of the report

## 1. With regard to the elements of the international application:\*

☐ the international application as originally filed.☒ the description:

pages 1-12 as originally filed

pages NONE, filed with the demand

pages NONE, filed with the letter of \_\_\_\_\_

☒ the claims:

pages NONE, as originally filed

pages NONE, as amended (together with any statement) under Article 19

pages NONE, filed with the demand

pages 13-15, filed with the letter of 22 January 2004 (22.01.2004)

☒ the drawings:

pages 1-12, as originally filed

pages NONE, filed with the demand

pages NONE, filed with the letter of \_\_\_\_\_

☐ the sequence listing part of the description:

pages NONE, as originally filed

pages NONE, filed with the demand

pages NONE, filed with the letter of \_\_\_\_\_

## 2. With regard to the language, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language \_\_\_\_\_ which is:

☐ the language of a translation furnished for the purposes of international search (under Rule 23.1(b)).☐ the language of publication of the international application (under Rule 48.3(b)).☐ the language of the translation furnished for the purposes of international preliminary examination (under Rules 55.2 and/or 55.3).

## 3. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

☐ contained in the international application in printed form.☐ filed together with the international application in computer readable form.☐ furnished subsequently to this Authority in written form.☐ furnished subsequently to this Authority in computer readable form.☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.4. ☒ The amendments have resulted in the cancellation of:☒ the description, pages NONE☒ the claims, Nos. NONE☒ the drawings, sheets/fig NONE5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).\*\*

\* Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17).

\*\* Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.

**V. Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement****1. STATEMENT**

Novelty (N)	Claims <u>1-21</u>	YES
	Claims <u>NONE</u>	NO
Inventive Step (IS)	Claims <u>1-21</u>	YES
	Claims <u>NONE</u>	NO
Industrial Applicability (IA)	Claims <u>1-21</u>	YES
	Claims <u>NONE</u>	NO

**2. CITATIONS AND EXPLANATIONS**

Claims 1-21 meet the criteria set out in PCT Article 33(2)-(4), because the prior art fails to teach or suggest an integrated circuit die for a flip chip comprising a plurality of die bond pads situated on the die/the die means wherein the die bond pads are situated in rows with every other row having a bond pad spacing different than that of a bond pad spacing of an adjacent row; and a method of fabricating an integrated circuit die for a flip chip comprising the steps of providing a plurality of die bond pads situated on the integrated circuit die wherein the plurality of die bond pads are situated in rows with every other row having a bond pad spacing different than that of a bond pad spacing of an adjacent row.

----- NEW CITATIONS -----

NONE

**Claims**

What is claimed is:

1. An integrated circuit die for a flip chip comprising:  
a die; and  
5 a plurality of circular die bond pads situated on said die.
2. The integrated circuit die of claim 1, wherein said plurality of circular die bond pads is situated in rows beginning proximate an outside surface of said die.
- 10 3. The integrated circuit die of claim 2, wherein said circular die bond pads are situated in rows with every other row having a bond pad spacing twice that of a bond pad spacing of an adjacent row.
4. The integrated circuit die of claim 2, wherein said circular die bond pads are  
15 situated in rows defining row pairs, a first row of a row pair having a first bond pad spacing defining a first pitch, and a second row of the row pair having a second bond pad spacing defining a second pitch that is twice that of said first pitch.
5. The integrated circuit die of claim 4, wherein said first row of the row pair is  
20 situated proximate an outside edge of said die.
6. The integrated circuit die of claim 1, wherein each circular bond pad has a diameter of approximately 5 mils.
- 25 7. An integrated circuit die for a flip chip comprising:  
die means; and  
circular bond pad means disposed on said die means, said bond pad means defining a plurality of circular bond pads on said die means.
- 30 8. The integrated circuit of claim 7, wherein said plurality of circular die bond pads is situated in rows beginning proximate an outside surface of said die means.

9. The integrated circuit die of claim 8, wherein said circular die bond pads are situated in rows with every other row having a bond pad spacing twice that of a bond pad spacing of an adjacent row.

10. The integrated circuit die of claim 8, wherein said circular die bond pads are situated in rows defining row pairs, a first row of a row pair having a first bond pad spacing defining a first pitch, and a second row of the row pair having a second bond pad spacing defining a second pitch that is twice that of said first pitch.

11. The integrated circuit die of claim 10, wherein said first row of the row pair is situated proximate an outside edge of said die.

12. The integrated circuit die of claim 7, wherein each circular bond pad has a diameter of approximately 5 mils.

13. A method of fabricating an integrated circuit die for a flip chip comprising the steps of:

providing an integrated circuit die; and

providing a plurality of circular bond pads on said integrated circuit die.

14. The method of claim 13, wherein the step of providing a plurality of circular bond pads on said integrated circuit die includes the step of providing rows of circular bond pads beginning proximate an outside surface of said integrated circuit die.

15. The method of claim 14, wherein the step of providing rows of circular bond pads beginning proximate an outside surface of said integrated circuit die includes the step of providing rows of circular bond pads with every other row having a bond pad spacing twice that of a bond pad spacing of an adjacent row.

16. The method of claim 14, wherein the step of providing rows of circular bond pads with every other row having a bond pad spacing twice that of a bond pad spacing of an adjacent row includes the step of situating the bond pads in rows defining row pairs, a first row of a row pair having a first bond pad spacing defining a first pitch,

15

and a second row of the row pair having a second bond pad spacing defining a second pitch that is twice that of said first pitch.

17. The method of claim 16, wherein said first row of the row pair is situated proximate an outside edge of said die.

18. The method of claim 13, wherein the step of providing circular bond pads includes providing circular bond pads with each circular bond pad having a diameter of approximately 5 mils.